Qs and As from the Climate Pollution Reduction Grants (CPRG) Technical Assistance Forums

Updated On: January 24, 2024

Note: This document provides answers to technical questions asked during or after EPA's Climate Pollution Reduction Grants (CPRG) Technical Assistance Forum meetings for planning grantees. The questions are separated out by topic headers.

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I. Quality Assurance Project Plans (QAPPs)

Q1: How rigid are the QAPP templates? For example, if we have an existing inventory, can we change the structure of the QAPP to meet our needs?

The QAPP template is entirely optional. The template includes a framework for developing QAPPs consistent with the EPA's Environmental Information Quality Assurance Project Plan (QAPP) Standard. Sample text is provided under each element of the outline. These example approaches are optional, and grantees are free to independently develop their QAPP elements consistent with the EPA's published guidance for QAPPs, commensurate with the complexity and type of work, how the results will be used, the available resources, and unique needs of the grantee.

Q2: The initial draft of the QAPP is due soon. Will this be an iterative process where we can address comments on our initial submission?

Yes. If the EPA QA staff have questions or comments on your QAPP, they will return it for you to address. In some EPA regions, your QAPP may be reviewed by a contractor before being submitted for EPA approval (please confirm the review process with your project officer). The contractor may provide comments or recommendations for you to make prior to final submission. In addition, if you need to amend your QAPP after it is approved, you may do so.

Q3: The Tribal QAPP template in Appendix B asks for statistics as percent signed bias and percent variance. The note says that it would be calculated in accordance with the EPA's Data Assessment Statistical Calculator (DASC) Tool, but the tool gives choices for Criteria Pollutants but not CO2e. How should the percent signed bias and percent variance be calculated?

The examples in the Appendix of the QAPP Template are based on comparing a series of primary estimates to a series of independent but comparable Quality Control (QC) estimates. This QC methodology is not required, and grantees may elect to use other QC methodologies. At this point in the project planning phase, you may not have the data necessary to complete a comparative statistical calculation. If so, you are not expected to have this information in the QAPP. Your QAPP may reflect the general approach that you expect to take. For additional detail, please consult with your project officer.

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Q4: Is the PCAP QAPP expected to cover CCAP and Status Report activities as well? Will additional QAPPs be necessary for the CPRG program?

The EPA's Standard for Quality Assurance Project Plans (CIO 2105-S-02.0) requires that your QAPP cover all work performed under the grant that involves "the collection, production, evaluation, or use of environmental information …." The QAPP will be effective for the entirety of the grant and is reviewed annually to confirm if updates are needed. As such, the QAPP should cover the appropriate CCAP and Status Report activities as well as the PCAP. QAPPs may be modified or updated as needed over the course of the grant period.

II. Grants Management

Q1: Regarding procurement of professional services to support software and technical assistance related to the GHG inventory and data work this grant will require, what procurement steps do we need to be considering from the EPA/Federal level?

When procuring property and services under a Federal award, a recipient must follow requirements as described in 2 CFR Part 200 and by the EPA Best Practice Guide for Procuring Services, Supplies, and Equipment Under EPA Assistance Agreements. EPA's Office of Grants and Debarment has posted materials from a webinar on this topic here.

Q2: Can I use grant funds to provide food and refreshments or stipends to maximize community member participation and engagement during public meetings?

Meals and light refreshments may be eligible costs if they are in accordance with EPA's grant policy and you have prior approval for the expenses. Provision of meals or light refreshments must be necessary to achieve the objectives of the event, and the objectives of the grant. For more information, please see Section 5 of the Office of Grants and Debarment Guidance on Selected Items of Cost for Recipients.

Eligible costs related to intergovernmental coordination and public engagement may include stipends to cover expenses to attend meetings associated with the program. More details are available on the EPA Guidance on Participant Support Costs webpage. Such costs must be included in the approved budget for the project and support the objectives of the grant.

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Q3: Are there any restrictions on the use of contractual assistance in the development of the PCAP? Any suggestions on things to include or avoid in developing RFPs or RFQs?

There are no limitations on the dollar value or percentage of total funds used for contracts under the CPRG planning grant. When procuring property and services under a Federal award, a recipient must follow requirements as described in 2 CFR Part 200 and under the Best Practice Guide for Procuring Services, Supplies, and Equipment Under EPA Assistance Agreements. Recipients may be able to use an existing long-term contract that preceded the EPA assistance agreement, if that contract was procured competitively consistent with Federal financial assistance regulations (including Disadvantaged Business Enterprise considerations) in effect at the time. Some guidance on procuring technical services to assist with emissions inventory development was discussed on the November 9 Climate Planning Analytics TAF and examples of state, local, and tribal procurements can be found in the Grants Management section of the Technical Assistance Forum Resource Library (contact cprg@endyna.com if you are a CPRG planning grantee or grantee partner and would like access).

III. Interagency/Intergovernmental Coordination

Q1: I have repeatedly contacted a regional partner organization with no response. How can I coordinate if they don't respond to my request to coordinate?

Please contact your EPA Regional Office for assistance. Either your Project Officer or Technical Contact can check on this issue for you.

Please note, there is no requirement that every jurisdiction or organization within the scope of a planning grant actively participate. The lead organization should collaborate to the extent possible and must consider the entire geographic region in developing deliverables, even if not all jurisdictions participate.

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IV. Greenhouse Gas (GHG) Inventory and Projections

Q1: Where can I find emissions and sinks information on aquatic vegetation, algae, and moss?

EPA's National Greenhouse Gas Inventory includes aquaculture as a part of coastal wetlands. However, this category is excluded from the state, local, and tribal Greenhouse Gas Inventory tools currently, as this data is not generally available at that level. EPA uses IPCC Tier 1 method and Tier 1 emission factor (from the IPCC 2013 Wetlands Supplement) to estimate N2O emissions for the national GHG Inventory. National GHG Inventory Chapter 6 [starting on page 6-119]:

The activity data EPA uses is annual fish production (i.e., mass of production of different type fish-quantity of food stock produced). There is more information available in Section 4, Coastal Wetlands in the IPCC 2013 Wetlands Supplement (starting on page 159) and a worksheet available for you to use on page 308 to calculate emissions for aquaculture.

Q2: How should I calculate emissions from residential wood stoves?

Particulate matter (PM) does not convert to CO_2e because particulate matter is not a greenhouse gas (GHG). CO_2 emissions from burning biomass (e.g., wood) are accounted for only as informational emissions because they are biogenic. However, CH_4 and N_2O emissions from biomass combustion should be accounted for when estimating emissions from residential wood stoves. You can quantify wood burned and then use EPA's local GHG inventory tool to estimate emissions from there.

Q3: Is there a timeframe for the annual GHG and co-pollutants reduction calculation? For example, 2025-2030, 2025-2050?

EPA does not require a specific start year or base year; inventory years or a time series start year should be chosen based on availability of underlying data and to support development of GHG targets. GHG emissions projections are not required for the PCAP, but near-term (e.g., 2030-2035) and long-term (e.g., 2050) projections of GHG emissions are required to be included in the CCAP. This element includes projections of GHG emissions (and sinks, if feasible) in the absence of plan measures (e.g., a "business-as-usual" projection), and a projection of GHG emissions under a scenario where the plan is fully implemented. The inclusion of sector-based projections is strongly recommended (e.g., establishing a separate GHG emissions projection for transportation, electricity generation, commercial and residential buildings, industry, agriculture, and waste and materials management). Grant recipients with existing GHG projections may use those projections, but are encouraged to update, modify, or expand those projections for the CCAP as appropriate. Similarly, EPA does not require a specific start year or projections year for any co-pollutant emissions analysis, and inventory years should be based on availability of underlying data.

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V. Reduction Measures

Q1: Does the PCAP require a quantitative calculation and, if so, what does this quantitative calculation entail? Does it cover the year of the PCAP submission or a future year? Or can it be a qualitative analysis of emissions reductions supported by expert insight? Are qualitative estimated emissions reductions appropriate when data is not available for calculations? (edited for conciseness and clarity)

Yes, the PCAP must include "quantified emissions reductions" that are to be based on quantitative calculations to estimate the effectiveness of a particular reduction measure or measures at lowering GHG emissions. However, EPA does not prescribe specific analytical approaches or methods to conduct this analysis. EPA also does not prescribe the particular year of the projection, although 2030 and 2050 are “default” years used by many other public and private entities to establish GHG reduction targets. Additionally, trainings and technical tools to aid in quantifying GHG reduction measures can be found on the CPRG technical tools website.

Q2: For many waste and materials strategies, to fully quantify the GHG benefit of an action, using a consumption or lifecycle approach is important. For CPRG quantification purposes, are there recommended methodologies for consumption or lifecycle based technical analysis? Relatedly, if we wish to use methodologies that we have developed, what documentation or substantiation should be provided?

EPA does not recommend or endorse specific quantification methodologies for greenhouse gas (GHG) reduction measures, including waste and material management strategies. Nor does EPA establish specific documentation requirements for measure-level GHG emission analyses in the planning grants program guidance. For waste material strategies or other GHG reduction measures appearing in PCAPs, grantees applying for implementation funds to implement those measures may want to consider the informational and documentation requirements described in Appendix C of the Notice of Funding Opportunity (NOFO p. 65).

Q3: What are the geographic scope requirements for the GHG reduction measures?

For the purposes of CPRG, GHG reduction measures should be implemented within the geographic scope covered by the relevant PCAP or CCAP.

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Q4: What is the preferred method for emission reduction quantifications to be included in the PCAP? What level of details is expected to be included in emission reductions associated with PCAP measures?

EPA does not recommend or endorse specific quantification methodologies for greenhouse gas (GHG) reduction measures. There are several useful tools and methodologies available under the CPRG Training, Tools, and Technical Assistance webpage. An applicable PCAP is one that geographically covers an entity and contains GHG reduction measures that can be implemented by the entity. A PCAP may include GHG reduction measures that apply broadly and can be implemented by the municipalities or other jurisdictions comprising the state, metro area, territory, or tribe. While the PCAP does not necessarily need to quantify specific GHG reductions by location, it should describe the GHG reduction measures with enough detail that implementation grant applicants can provide an estimation of future GHG reductions associated with the measure. Therefore, the PCAP should provide information at a sectoral resolution that facilitates an analysis at the measure-level. The PCAP does not need to identify the specific names of other eligible entities (e.g., such as specific cities or counties) that may or may not implement a particular measure.

Q5: Are the priority measures we are proposing in our PCAP appropriate to ensure wide eligibility for Phase 2 applications?

Due to the competitive nature of the implementation grant phase of the CPRG program, EPA is not able to provide feedback on PCAPs. EPA has published the competition details for the implementation grants well in advance of the application deadline so that entities considering whether to submit an implementation grant application will be able to take elements of the implementation evaluation criteria into consideration when developing their PCAP. Planning grantees may wish to review Sections IV and V of the NOFO as they consider what measures to include in their PCAP.

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Q6: Are there GHG emissions reduction and/or modeling tools that can incorporate building retrofits for both individual buildings as well as campus facilities?

EPA does not recommend or endorse specific quantification methodologies for greenhouse gas (GHG) reduction measures. A selection of technical tools to aid in quantifying GHG reduction measures can be found on the CPRG Training, Tools and Technical Assistance webpage. In addition, for the analyses required to estimate the impact of building sector measures across an entire state or community, grantees may find the NREL ResStock and ComStock tools useful. These tools help states and localities identify which building stock improvements optimize cost savings and GHG emissions reductions. They also offer useful data for grantees who are not modeling GHG emissions. The ResStock tool offers fact sheets with insight into the state's potential energy and utility cost savings and specific home updates that would save effective cost and energy-saving home updates. The ComStock tool offers timeseries, nationwide energy consumption data for the commercial building stock. ResStock uses DOE's open-source building energy modeling ecosystem of OpenStudio® and EnergyPlus™. Comstock samples building characteristics from DOE's Commercial Prototype Building Models and Commercial Reference Buildings.

Q7: When replacing internal combustion vehicles with electric vehicles (EVs), should I calculate annual emissions reductions cumulatively or apply the lifetime emission reduction for all years?

The CPRG program guidance does not specify that a particular methodology be used for the quantified GHG measures requirement, such as estimating annual emissions reductions for consecutive years. In addition to a GHG inventory, the PCAP must include quantification of emissions reductions from priority measures, but these do not need to be calculated for multiple years. The grantee can choose one future year and/or calculate total emissions reduced up until that year for all years where the project would be implemented.

EPA explains how to estimate emissions reductions from the replacement of vehicles using MOVES in Section 2.6 of the Diesel Retrofit and Replacement Projects guidance document. If you are using another tool to quantify emissions, a similar methodology (i.e., calculating the emissions difference between a base and control case) could still be employed. The result of the calculations, regardless of the tool used, would provide a total emissions reductions estimate for the remaining useful lives of the replaced vehicles.

If you do plan to calculate annual emissions reductions for a series of years to estimate the total emissions reductions from replacing vehicles with lower emitting ones within a certain time period, the approach outlined in the Diesel Retrofit and Replacement Projects still applies. To implement this approach, the emissions from both the base and control case would be estimated for all calendar years until the end of the replaced vehicles' useful lives. The emissions difference would then be calculated for each calendar year.

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VI. Climate Planning Process

Q1: Would EPA be willing to produce a PCAP template for the benefit of all? Example measures would also be helpful.

EPA is providing PCAP resources including PCAP outlines for both States and MSAs and Tribes and Territories. These outlines provide optional examples of how to structure a PCAP, including headings and content guidance. The PCAP guidance for Tribes and Territories is accompanied by a resource document listing illustrative examples of greenhouse gas reduction measures, links to technical trainings related to tribal and territorial PCAP elements, and other resources. All three documents are available on the CPRG Technical Assistance Forum Resource Library site (See the Supplemental Resources > Climate Planning Process > EPA & Federal Resources folder).

Q2: Is there a PCAP page limit?

No, there is no page limit for the PCAP.

VII. LIDAC Benefits Analysis

Q1: When identifying a census tract for a non-stationary project (e.g., purchase of a vehicle), how can we geographically attribute the benefits?

There are a number of methods that exist to spatially allocate emissions for specific air pollution source types – determining the most appropriate method for each source type/application is up to the grantee.

For reference, EPA uses a range of data sets to inform spatial allocation of mobile and area source pollutants. For example, EPA uses population, National Land Cover Database data, the OpenStreetMap database, the American Community Survey for census-related data, among others. For the onroad example provided, vehicle miles traveled (VMT) on a specific road-type could be an option. EPA has documented these and other potentially useful datasets in technical support documentation available online, for example the Technical Support Document (TSS): Preparation of Emissions Inventories for the 2020 North American Emissions Modeling Program.

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VIII. Co-pollutant Impacts Analysis

Q1: Does the base-year for the co-pollutant inventory (in the benefits analysis) have to be the same as the base year for the GHG inventory?

The base year for the co-pollutant inventory does not need to be the same as the base year in the GHG inventory.

Q2: Can you provide additional information on the AVoided Emissions and geneRation Tool (AVERT) and how different technologies can be tested?

More information about AVERT can be accessed in the AVERT User Manual and the FAQ online. This information covers more information on how AVERT works, the data on which it relies, how users can manipulate the tool, which technologies are explicit in the tool (and how to include those that are not), how to interpret results, and much more.